

D.) AMENDMENTS TO THE DRAWINGS

Replacement drawings were submitted on July 19, 2006 to comply with 37 C.F.R. 1.121(d), within the two month time period given by the Examiner.

E.) REMARKS

This paper is filed in response to the Office Action mailed May 19, 2006.

Upon entry of this Response, claims 19-28 will be pending in the Application.

In the outstanding Office Action, the Examiner objected to the disclosure because of informalities; objected to the drawings; objected to claim 28; rejected claims 19-23, 25-27 under 35 U.S.C. § 102(b) as being unpatentable over Bagalini et al. (E.P. No. 0,651,488) and rejected claim 24 under 35 U.S.C. 102(b) as being anticipated by Muelleman (U.S. Patent No. 5,448,443).

Reconsideration in light of the following remarks is respectfully requested.

Amendments to the Specification

The Examiner objected to the disclosure because of several informalities. In response thereto, each objection of the Examiner has been addressed, and amendments to the disclosure have been made to eliminate the basis for the objections. Support for the amendments can be found at least in Paragraphs [0008] – [0114]. Further, it is submitted that no new matter has been entered since the amendments are supported by the specification.

Amendments to the Claims

Claims 19, 24 and 28 are amended. The amendment to claim 19 is supported by at least paragraphs [0134] and [0142] in the specification. The amendment to claim 24 is supported by at least paragraphs [0140] and [0168] in the specification. The amendment to claim 28 is supported by at least paragraphs [0134] and [0135] in the specification. Furthermore, it is submitted that no new matter has been entered since the amendments are supported by the specification.

Information Disclosure Statement

In the outstanding Office Action, the Examiner objected to the information disclosure statement because it purportedly failed to comply with 37 CFR 1.98 (a)(3) for failure to include a concise explanation of each patent listed that is not in the English language.

Applicant's files indicate that English language versions or English abstracts were submitted for all foreign references cited in the IDS's submitted to the Patent Office and thus satisfied the requirements of 37 CFR 1.98 (a)(3). Applicant respectfully requests that the Examiner review the file to determine whether or not these materials were separated from the Forms PTO-1449 following submission to the Patent Office. If copies cannot be located, Applicant is pleased to provide the Examiner with another copy of these references.

Objection to the Drawings

The Examiner objected to the drawings under 37 C.F.R. § 1.121(d) because the informal drawings were hand drawn and "not of sufficient quality."

In response thereto, amended, more formal versions of Figures 3-5, 7 and 9-12 were submitted on July 19, 2006, within the two month time period identified in the Office Action.

Objection to the Claims

The Examiner states that in claim 28, the language "about 1 volt DC" is indefinite. Although identified as an "objection," Applicant interprets this as a rejection under 35 U.S.C. §112, second paragraph. Applicant respectfully traverses the objection/rejection. However, because Applicant has amended claim 28 with broader "greater than" language, it is believee that the amendment overcomes the Examiner's objection/rejection.

Rejection under 35 U.S.C. 102(b)

A. Bagalini

The Examiner rejected claims 19-23 and 25-28 under 35 U.S.C. 102(b) as being anticipated by Bagalini (E.P. No. 0,651,488 A1), hereinafter referred to as "Bagalini."

Applicants respectfully traverses the rejection.

The examiner is reminded that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)." See Manual of Patent Examining Procedure, 8th Edition (MPEP), Section 2131.

In addition, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)." See MPEP, Section 2131.

Bagalini, as understood, is directed to an electrical protection device that includes a detecting means for detecting a fault and for generating an output signal upon detection of such a fault. A latch device, responsive to the output signal is provided for disconnecting an electrical supply from a load upon receipt of the output signal.

In contrast, independent claim 19 recites a sensor relay that is energized in response to a reference signal being within a predetermined range, where the reference signal is derived from a voltage differential between one or more of the conductors and a reference point that should, in use, be electrically isolated from the conductors.

Claim 19 recites in part:

a sensor having a sensor relay that is energized in response to a reference signal being within a predetermined range, the reference signal being derived from a voltage differential between one or more of the conductors and a reference point that is electrically isolated from the conductors when in use, wherein the sensor provides a sensor signal in response to the sensor relay being energized

This limitation is directed to the passive nature of sensor relay as shown in the Figures. In the absence of a fault, the sensor relay is inactive and draws little or no

current through its coil. Additionally, with the illustrated embodiments, once a fault occurs, the sensor relay is energized by the reference signal.

Claim 19 further recites in part

a switching device having a switching relay that is responsive to the sensor signal for progressing between a first mode and a second mode wherein: in the first mode the input and output terminals are respectively electrically connected for allowing the load to receive power from the source via the switching relay; and in the second mode, the input and output terminals are electrically disconnected for preventing the source from supplying power to the load via the switching relay.

This limitation requires the reference signal to be derived from a voltage differential between one or more of the conductors and a reference point that in use is electrically isolated from the conductors. That is, the reference point is other than the two conductors.

Neither of these limitations are taught or suggested by the cited art. The Examiner cites to Bagalini as allegedly disclosing the limitations recited by Applicant. However, Bagalini is only concerned with detecting current, not voltage as in Applicant's claimed invention. More specifically, Bagalini teaches a detecting means 12 includes a detecting unit 22 for detecting an overcurrent fault, a detecting unit 24 for detecting a short circuit fault, and a detecting unit 26 for detecting an earth leakage fault and a detecting unit 26 is for detecting an earth leakage fault. Additionally, Bagalini teaches the detecting units as detecting a current flowing in one of the conductors, specifically in conductor L, or between conductors N and L. In contrast, claim 19 is directed to the reference signal being derived from a voltage differential between one of more of the conductors and a reference point that when in use is electrically isolated from the conductors.

Bagalini further fails to teach or suggest the use of a sensor relay in detecting means 12 or detecting units 22, 24, 26. Even if it did, there is nothing in Bagalini that teaches or suggests that such a relay would be energized in response to a fault condition. In addition, Bagalini is only responsive to current in or between the conductor N and L,

and is not responsive to a voltage between one or more of the conductors and a reference point that is isolated from the conductors when in use, as Applicant recites in claim 19. Further, Bagalini does not teach or suggest a switching relay that is responsive to the sensor signal for progressing between a first mode and a second mode wherein in the first mode, the input and output terminals are respectively electrically connected for allowing the load to receive power from the source via the switching relay, and in the second mode the input and output terminals are electrically disconnected for preventing the source from supplying power to the load via the switching relay. That is, latch 14 does not carry load current.

With respect to independent claim 25, the Examiner states that "Bagalini discloses a control circuit" that include the limitations in claim 25. Claim 25 requires the inclusion of two relays, a sensor relay and a switching relay, while Bagalini discloses only a single relay-like device in the form of latch 14. In addition, the input and output terminals are selectively electrically connected for allowing the load to receive power via switching relay. If latch 14 is interpreted as being the switching relay, as it appears the Examiner may be asserting, this interpretation is incorrect because the latch of Bagalini does not provide the same functionality: the load is supplied power via contact 32, not latch 14.

Applicant submits that for at least these reasons, independent claims 19 and 25 are not anticipated by Bagalini and the rejection should be withdrawn.

Claims 20-23 and 26-28 depend from claims 19 and 25, and thus are also distinguishable from Bagalini for at least these reasons. Thus, the rejection as to these claims should also be withdrawn.

B. Muelleman

Next, the Examiner rejected claim 24 under 35 U.S.C. 102(b) as being anticipated by Muelleman (U.S. Patent No. 5,448,443), hereinafter referred to as "Muelleman." Specifically, the Examiner stated that

Muelleman discloses a wiring system (figure 1) for carrying a mains supply from a mains source having at least two mains conductors (figure 1, items L and N, column 3, lines 54-58), the system being installed at a site and including:

- a transformer (figure 1, item T1, column 3, lines 49-53) located at or near conductors and one or more secondary windings to provide a site voltage that is substantially equal to the mains supply (1:1 winding ratio, column 3, line 54), at least two site conductors (figure 1, items L' and N', column 3, lines 63-66) that are installed at the site for electrically connecting with the one or more secondary windings for distributing the site voltage to predetermined locations about the site;
- and a floating conductor (figure 1, item SG, column 3, line 66 to column 4, line 2) that is associated with a load installed at the site for providing a reference voltage with respect to one or more of the site conductors (column 4, lines 1-2).

Applicants respectfully traverse this rejection.

Muelleman, as understood, is directed to a power conditioning device that protects sensitive electronics in modern electronic equipment from disruption or destruction caused by transients which can cause both induction and injection currents into the grounding system of the electronic equipment.

In contrast, independent claim 24 recites a floating conductor that is in normal use, isolated from the other conductors and associated with a load installed at the site for providing a reference voltage with respect to one or more of the site conductors.

Several of the features recited by Applicant in independent claim 24 are not taught or suggested by Muelleman. First, Muelleman does not teach or suggest a floating conductor as recited by Applicant in independent claim 24. Muelleman includes a transformer, T1, having primary conductors L and N, and secondary conductors, L and N. Also provided is a conductor EG for providing a return path for load fault currents. Applicant recites the use of a floating conductor, which is not a conductor that is connected, in normal use, to other conductors. The floating conductor of the present invention provides a reference voltage, which is not taught by Muelleman.

Furthermore, the conductor EG taught in Muelleman is an exact contrast to the floating conductor by carrying a fault current. Applicant recites a low voltage sensor relay that only draws a current in the order of milliamps, and does not support a fault current, which is typically many orders of magnitude greater than the milliamps taught by the present invention.

Thus, Muelleman fails to teach each and every limitation recited in independent claim 24 and the rejection should be withdrawn.

CONCLUSION

For at least these reasons, Applicant respectfully requests reconsideration of the Application and withdrawal of the outstanding objections and rejections. Applicant respectfully submits that claims 19-28 are in condition for allowance. If the Examiner believes that prosecution of this Application could be expedited by a telephone conference, the Examiner is encouraged to contact the Applicant.

This response is submitted within four months of the mailing date of the Office Action and it is believed that the only fee due is \$60 for a one-month's extension of time in which to file this paper. The Commissioner is hereby authorized to charge any additional fees and credit any overpayments to Deposit Account No. 50-1059.

Respectfully submitted,
McNEES, WALLACE & NURICK

By /Shawn K. Leppo/
 Shawn K. Leppo
 Reg. No. 50,311
 100 Pine Street, P.O. Box 1166
 Harrisburg, PA 17108-1166
 Tel: (717) 237-5218
 Fax: (717) 237-5300

Dated: September 19, 2006